

CLAIMS

What is claimed is:

1. A portable memory device including:
 - a wireless communication module to communicate with an access device in a wireless fashion;
 - a data storage module to store bulk data; and
 - a controller connected to the communication module and to the data storage module, the controller controlling storage of data in the data storage module and retrieval of data from the data storage module in response to requests from a user via the access device.
2. A device as claimed in Claim 1, in which the communication module is a radio frequency (RF) transceiver.
3. A device as claimed in Claim 2, in which the wireless communication module communicates using a standardized communication protocol.
4. A device as claimed in Claim 2, in which the communication module communicates using Bluetooth IEEE 802.15 technology.

5. A device as claimed in Claim 4, in which the communication module includes Bluetooth hardware interacting with a Bluetooth software stack.

6. A device as claimed in Claim 5, in which the controller includes a host control interface (HCI) to interface the controller to the wireless communication module in a serial fashion.

7. A device as claimed in Claim 6, in which the HCI is a USB interface.

8. A device as claimed in Claim 1, in which the controller includes a processor which operates in at least two different modes dependent upon processing power requirements.

9. A device as claimed in Claim 8, in which the processor operates in at least a first and a second active mode, the processor being configured to have greater processing capabilities when in the second active mode.

10. A device as claimed in Claim 1, in which the communication module operates in a dormant mode when not communicating with the access device, and in an active mode when communicating with the access device.

11. A device as claimed Claim 8, in which the clock frequency of the processor is adjusted when the processor is in a different mode of operation.
12. A device as claimed in Claim 11, in which the supply voltage to the processor is selectively reduced.
13. A device as claimed in Claim 12, which includes a DVM module for adjusting the processor voltage dependent upon its mode of operation.
14. A device as claimed in Claim 1, which includes a rechargeable power supply for powering its various components, and a display to form a self-contained functional unit when not used in conjunction with the access device.
15. A data processing system, which includes:
- a plurality of access devices, each access device including at least a wireless communication interface; and
 - at least one portable memory device which includes
 - a wireless communication module to communicate in a wireless fashion with the wireless communication interface of any one of the access devices when in proximity to the access device;
 - a data storage interface connected to a data storage module; and

a controller connected to the communication module and to the data storage interface, the controller controlling storage of data in the data storage module and retrieval of data from the data storage module in response to requests from a user via any one of the access devices.

16. A system as claimed in Claim 15, in which the portable memory device communicates data stored in the data storage module exclusively via the access device.

17. A system as claimed in Claim 15, in which the data storage module is releasably connected to the data storage interface to allow a user to store and retrieve data from a connected data storage module via the access device in a wireless fashion.

18. A system as claimed in Claim 15, in which the data storage module forms an integral part of the portable device, the device including a compact portable housing for housing its various components and modules.

19. A system as claimed in Claim 18, in which the portable device includes a power source including an attachment arrangement releasably to attach a power source to a complementary attachment arrangement of the housing.

20. A system as claimed in Claim 19, in which the power source is a rechargeable battery source and the portable device includes a charger circuit for charging the battery without removing it from the housing.

21. A system as claimed in Claim 15, in which the data storage module is a semiconductor memory selected from the group including a FLASH memory, DRAM memory and SRAM memory.

22. A system as claimed in Claim 15, in which the data storage module is a magnetic memory device in the form of a disk drive.

23. A system as claimed in Claim 15, in which the data storage module is an optical storage device.

24. A wireless interface including:

a wireless communication module to communicate with an access device in a wireless fashion;

a connector to connect to a data storage module which operatively stores bulk data; and

a controller connected to the communications module and to the connector, the controller controlling the storage of data in the data storage module and the retrieval of data from the data storage module in response to requests from a user via the access device.

25. A wireless interface as claimed in Claim 24, in which the communication module is a radio frequency (RF) transceiver.

26. A wireless interface as claimed in Claim 25, in which the wireless communication module communicates using a standardized communication protocol.

27. A wireless interface as claimed in Claim 25, in which the communication module communicates using Bluetooth IEEE 802.15 technology.

28. A method including:

providing a portable memory device which includes a wireless communication module;

sensing when the memory device is in proximity to any one of a plurality of access devices;

establishing wireless communication with the access device; and

communicating data between the memory device and the access device which operatively displays the data to a user.

29. A method as claimed in Claim 28, which includes determining the processing capabilities of the access device and adjusting a level of processing by a processor of the portable memory device dependent upon the processing capabilities of the access device.

30. A method as claimed in Claim 29, which includes running application software on the portable memory device when the device has a greater processing capability than the access device.

31. A method as claimed in Claim 30, which includes running application software on the access device when the access device has sufficient processing capabilities, and storing data in and retrieving data from the portable memory device as required by the application software.

32. A method as claimed in Claim 29, which includes operating a processor of the portable memory device in at least two different modes dependent upon processing power requirements of the device.

33. A method as claimed in Claim 32, which includes operating the processor in at least a first and a second active mode, the processor being configured to have greater processing capabilities when in the second active mode.

34. A method as claimed in Claim 28, in which the processor is switched into different a different mode of operation by adjusting its supply voltage.

35. A method as claimed in Claim 28, in which the communication module operates in a dormant mode in which its power consumption is reduced when not communicating with the access device, and in an active mode when communicating with the access device.

36. A method as claimed in Claim 35, which includes adjusting the processor voltage dependent upon the required mode of operation.

37. A method as claimed Claims 35, which includes adjusting the clock frequency of the processor when the processor is in a different mode of operation.